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EXAMINER
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NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 February 2008</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14 and 16-39</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-14 and 16</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>11/25/2003, 11/14/2005, 03/05/2008</u>.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to the Amendment filed on 02/04/2008.

2.   Claims 1, 21, and 34 were amended. Claim 15 was canceled. No claims were added.

3.   Claims 1 –14, and 16 – 39 are pending in this application.

4.   Applicant's arguments with respect to claims 30 – 31, and 33 – 39 have been considered but are moot in view of the new ground(s) of rejection. The new grounds are based on 101 rejections.

Information Disclosure Statement

5.   The information disclosure statement (IDS) was submitted on 11/25/2003, 11/14/2005, and 03/05/2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

6.   The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The term "providing medium" in claims 31 lacks of antecedent basis in the specification.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8.   Claims 1 – 14, and 16 – 39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding Claims 1, 21, and 34, the newly amended limitation "wherein the self-organizing map is created by extracting features from the information items **and comparing, collectively, all of the features extracted** from the information items" **and** "displaying one or more image obtained from the image data included in the selected information items defined by the search criterion **so as to indicate the subject matter** of the selected information items". Applicant relies on pages 15-17 of the specification for support. However, the specification does not provide support for such amended limitations.   See *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10.   Claims 30 – 31, and 33 – 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 30, recites "Computer software having program code...". Since the claim becomes nothing more than sets of software instructions, the claim is directed to "software per se".

Claim 31 appears to be directed to non-statutory subject matter. Applicant has failed to provide antecedent basis for the claim terminology "providing medium".

Claim 33 fails to be limited to embodiments which fall within a statutory category. Specifically, the claim recites "the medium being a transmission medium ..." which does not appear to be a process, machine, manufacture, or composition of matter. See, e.g., In re Nuitjen, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like Nuitjen's is not a process, machine, manufacture, or composition of matter.' ... Thus, such a signal cannot be patentable subject matter.").

Claims 34 recites "A user interface ..." which is directed to functional descriptive material, per se (computer program which). Functional descriptive material consists of

data structures and computer programs which impart functionality when employed as a computer component.

Applicant should duly note that: "When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and >In re< Warmerdam, 33 F.3d *>1354,< 1360-61, 31 USPQ2d *>1754,< 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

12.   Claims 1 – 4, 7, 10 – 14, 16 – 18, and 20 – 39 are rejected under 35

U.S.C. 103(a) as being unpatentable over Jain et al. (Jain hereinafter) (US Patent No.

5,983,237, issued: November 9, 1999), in view of Kohonen et al. (Kohonen hereinafter)

(NPL: "Self Organization of Massive Document Collection", IEEE, May 2000), and

further in view of Weiss et al. (Weiss hereinafter) (US Patent App. Pub. No.

2002/0138487 A1, published: September 26, 2002).

Regarding Claim 1, Jain discloses an information retrieval system in which a set

of distinct information items map to respective nodes in an array of nodes by mutual

similarity of the information items, so that similar information items map to nodes at

similar positions, wherein the self-organizing map is created by extracting features from

the information items and comparing, collectively[1], all of the features extracted from the

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[1] Collectively: forming a whole or aggregate; formed or assembled by collection (Collins English
Dictionary, HarperCollins Publishers 2000).

information items[2] (Col. 9, lines 37 – 50, "…into a single composite response…", Col.

11, "feature vectors from the database 112 (using the database interface 208),

comparing them against the equivalent feature vectors and creating a ranked score

sheet indicating the similarity of each retrieved image to the query image or query

term…."24 – 29, Col. 5, 58 – 61, "The characteristic of the patent is that when it finds a

candidate image in the database containing an apple by keyword search, it screens the

image by **comparing the similarity criteria set** by the user with the schematic diagram

and properties of the apple in the candidate image..", Col. 24, lines 1 – 5 ,

"Alternatively, a multimedia engine can be used such that a single engine computes

feature vectors from multiple media types and **compares features** created from any

registered media.", Jain; Page 584, lines 8 – 20, Kohonen)**,** the system comprising:

    a user control for defining a search criterion for selecting information items (Col.

9, lines 25 – 26, Jain);

    a detector for detecting those positions corresponding to the selected information

    items (Col. 1,5 and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN]

    position, Jain).

    However, Jain is silent with respect to self-organizing map. On the other hand,

Kohonen discloses self-organizing map (Page 1, b. Scope of This Work, para. 1,

Kohonen). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the Kohonen's teachings to the system Jain. Skilled

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[2] Applicant should duly note that a preamble is generally not accorded any patentable weight where it
merely recites the purpose of a process or the intended use of a structure, and where the body of the
claim does not depend on the preamble for completeness but, instead, the process steps or structural

artisan would have been motivated to do so, as suggested by Kohonen (Page 1, b.

Scope of This Work, para. 1, Kohonen), to be able to map any representative subset of

old input data and new input items straight into the most similar models without re

computation of the whole mapping. In addition, both of the references (Jain and

Kohonen) teach features that are directed to analogous art and they are directed to the

same field of endeavor, such as, databases management systems, searching, mapping,

visual representations, and positions. This close relation between both of the references

highly suggests an expectation of success.

Furthermore, the combination of Jain in view of Kohonen discloses:

a graphical user interface for displaying display points representing those

positions within the self-organizing map corresponding to the selected information items

(Col. 11, and 12, lines 62 – 64 and 1 –3, respectively, Jain[3]; and Page 1, b. Scope of

This Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers", Section: C.

Rapid Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st paragraph in that

section, "...with a pointer corresponding to old winner location stored with each training

vector, the map unit corresponding to the associated pointer is searched for first, and

then a local search for ...", Kohonen); and

a processor, responsive to the selected information items defined by the search

criterion, for providing one or more representations representative of the information

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limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951)
[3] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 – 39, Jain).

content of the selected information items (Col. 11, lines 24 – 29, the Query Processor,

Jain),

wherein the information items include at least image data (Col. 12, lines 57 – 59,

Jain).

The combination of Jain in view of Kohonen further discloses: wherein the

processor is responsive to the selected information items and displays one or more

images (Col. 7, lines 35 – 39 and 45 – 47; Jain). However, the combination of Jain in

view of Kohonen does not explicitly disclose that the one or more image are obtained

from the image data included in the selected information items defined by the search

criterion. On the other hand, Weiss discloses the processor that; provides one or more

image representative of the information content of the selected information items

defined by the search criterion so as to indicate the subject matter of the selected

information items (Col. 7, lines 35 – 39 and 45 – 47; Jain; and Fig. 7, Page 4, [0095]

"Another aspect of the clustering problem is naming the determined groups, **in order to**

determine what is their subject, since the link-oriented grouping is indifferent to text,

and therefore can not relate a subject title to the new formed groups. The process of

entitling a group is called herein 'Labeling'", and [0097], "and then **relating the words**

to a subject",Page 6, [0136], "As a result, the user **receives an illustration of the**

'continents' where the searched words have been found", and [0137], Optionally,

the **results are presented in a 2-D map on which the main clusters are displayed**

as continents: the Sport continent, the Entertainment continent, the Health

continent, etc. The Clusters, in which the term 'Charlie's Angels' appeared, are marked

for the user. Of course alternatively this presentation can be a textual presentation or most preferably 3D presentation", Wherein the step of receiving an illustration of the continents corresponds to the step of displaying one or more images as claimed; wherein labels: Sport, Entertainment, and Health displayed in Fig. 7 correspond to the subject matter as claimed; Weiss). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Weiss' teachings to the system of the combination of Jain in view of Kohonen. Skilled artisan would have been motivated to do so, as suggested by Weiss (Page 2, [0026] and [0027], Weiss), to provide presentation of web sites, such that the visualization reveals certain attributes of the presented web sites; and to provide a search of Web sites, which classifies the Web site according to their attributes. In addition, the applied references (Jain, Kohonen, and Weiss) teach features that are directed to analogous art and they are directed to the same field of endeavor of database management system, such as search engines with selection criteria. This relation between the applied references highly suggests an expectation of success.

Regarding Claim 2, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the graphical user interface is operable to display a two-dimensional display array of the said display points (Col. 16, lines 8 – 12, Jain[4]).

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[4] Wherein examiner interprets the matrix as the two-dimensional array claimed.

Regarding Claim 3, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, in which a dither component is applied to the mapping between information items and nodes in the self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen) so that information items that share a node tend to map to closely spaced, but different positions in the displayed array (Col. 12, lines 61 – 65, Structure SYNONYM, Jain).

Regarding Claim 4, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, in which the information items are mapped to nodes in the self-organizing map (Page 1, b. Scope of This Work, para. 1, Kohonen) on the basis of a feature vector derived from each information item (Col. 9, lines 44 – 50, Jain).

Regarding Claim 7, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, in which the information items comprise textual information, the nodes being mapped by mutual similarity of at least a part of the textual information (Col. 12, lines 61 – 65, Structure SYNONYM, Jain).

Regarding Claim 10, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

the search means and the graphical user interface being arranged to co-operate

(Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points

corresponding to information items selected by the search are displayed on the user

display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 11, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the said processor is operable to detect

clusters of similar information items (Col.20, lines 6 – 12, Jain) and to provide

representations representative of the information content of the respective clusters (Col.

20, lines 11 – 12, TID corresponds with "sky", Jain).

Regarding Claim 12, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the processor is oprable to provide the or

each said representation on the user display as a label of the display points

corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4

and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss)

Regarding Claim 13, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a system, wherein the label is a word or set of words (Fig. 8,

Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 14, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the processor determines, in respect of a set of information items with which a label is to be associated, the most frequently used word or set of words in the information items corresponding to the selected information items and applies that word or that set of words as the label (Page 2 and 4, [0046] and [0097], lines 1 – 2 and 1 – 4; respectively, Weiss).

Regarding Claim 16, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the said processor is operable to select, from the set of image items, an image item which is representative of the set of image items as a whole according to a predetermined selection criterion (Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss).

Regarding Claim 17, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the processor is operable to select the image item a property of which is nearest to the average of the same property of the said set of image items (Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss[5]).

Regarding Claim 18, the combination of Jain in view of Kohonen and further in view of Weiss discloses a system, wherein the said one or more representative image

items are applied as labels to the display points corresponding to the information items

represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

Regarding Claim 20, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a Video acquisition and/or processing apparatus comprising a

system (Fig. 3, item 150, Jain).

Regarding Claim 21, the combination of Jain in view of Kohonen and further in

view of Weiss discloses an information retrieval method in which a set of distinct

information items map to respective nodes in a self-organizing map (Page 1, b. Scope

of This Work, para. 1, Kohonen) by mutual similarity of the information items, so that

similar information items map to nodes at similar positions in the self-organizing map

(Page 1, b. Scope of This Work, para. 1, Kohonen), wherein the self-organizing map is

created by extracting features from the information items and comparing, collectively[6],

all of the features extracted from the information items[7] (Col. 9, lines 37 – 50, "…into a

single composite response…", Col. 11, "feature vectors from the database 112 (using

the database interface 208), comparing them against the equivalent feature vectors

and creating a ranked score sheet indicating the similarity of each retrieved image to the

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[5] Wherein examiner interprets the subject Entertainment "continent", which includes TV series, Movies,
etc, as the property nearest to the average of the same property claimed.
[6] Collectively: forming a whole or aggregate; formed or assembled by collection (Collins English
Dictionary, HarperCollins Publishers 2000).
[7] Applicant should duly note that a preamble is generally not accorded any patentable weight where it
merely recites the purpose of a process or the intended use of a structure, and where the body of the
claim does not depend on the preamble for completeness but, instead, the process steps or structural
limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa
v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951)

query image or query term...."24 – 29, Col. 5, 58 – 61, "The characteristic of the patent

is that when it finds a candidate image in the database containing an apple by keyword

search, it screens the image by **comparing the similarity criteria set** by the user with

the schematic diagram and properties of the apple in the candidate image..", Col. 24,

lines 1 – 5 , "Alternatively, a multimedia engine can be used such that a single engine

computes feature vectors from multiple media types and **compares features** created

from any registered media.", Jain; Page 584, lines 8 – 20, Kohonen), the method

comprising the steps of:

defining a search criterion for selecting information items (Col. 9, lines 25 – 26,

Jain);

detecting those positions within the self-organizing map (Page 1, b. Scope of

This Work, para. 1, Kohonen)corresponding to the selected information items (Col. 15

and 20, lines 34 – 37 and 6 – 8; respectively, the [ROW, COLUMN] position, Jain[8]);

displaying at least display points which are at positions representing those

positions within the self-organizing map corresponding to the selected information items

(Col. 11 and 15, lines 62 – 64 and 46 – 49, respectively, Jain[9] Page 1, b. Scope of This

Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers", Section: C. Rapid

Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st paragraph in that

section, "...with a pointer corresponding to old winner location stored with each training

vector, the map unit corresponding to the associated pointer is searched for first, and

then a local search for ...", Kohonen); and

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[8] Wherein the indexing B-tree corresponds to the array of nodes claimed.

in response to the selected information items defined by the search criterion,
providing one or more representations representative of the information content of the
selected information items (Col. 11, lines 24 – 29, Jain),

wherein the information items include are at least image data (Col. 12, lines 57 –
59, Jain); and

wherein the providing step includes displaying one or more image obtained from
the image data included in the selected information items defined by the search criterion
so as to indicate the subject matter of the selected information items (Col. 7, lines 35 –
39 and 45 – 47; Jain; and Fig. 7, Page 4, [0095] "Another aspect of the clustering
problem is naming the determined groups, **in order to determine what is their
subject**, since the link-oriented grouping is indifferent to text, and therefore can not
relate a subject title to the new formed groups. The process of entitling a group is called
herein 'Labeling'", and [0097], "and then **relating the words to a subject**",Page 6,
[0136], "As a result, the user **receives an illustration of the 'continents' where the
searched words have been found**", and [0137], Optionally, the **results are presented
in a 2-D map on which the main clusters are displayed as continents: the Sport
continent, the Entertainment continent, the Health continent,** etc. The Clusters, in
which the term 'Charlie's Angels' appeared, are marked for the user. Of course
alternatively this presentation can be a textual presentation or most preferably 3D
presentation", Wherein the step of receiving an illustration of the continents corresponds
to the step of displaying one or more images as claimed; wherein labels: Sport,

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[9] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 –

Entertainment, and Health displayed in Fig. 7 correspond to the subject matter as

claimed; Weiss).

Regarding Claim 22, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, wherein the displaying step displays a two-

dimensional display array of the said display points (Col. 16, lines 8 – 12, Jain[10]).

Regarding Claim 23, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, comprising:

carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

displaying on the display that only those display points corresponding to

information items selected by the search are displayed on the user display (Col. 15,

lines 46 – 49, Jain).

Regarding Claim 24, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a method, comprising detecting clusters of similar information

items (Col. 20, lines 6 – 12, Jain) and providing representations representative of the

information content of the respective clusters (Col. 20, lines 11 – 12, TID corresponds

with "sky", Jain).

39, Jain).
[10] Wherein examiner interprets the matrix as the two-dimensional array claimed.

Regarding Claim 25, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, comprising providing the or each said representation on the user display as a label of the display points corresponding to the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and [0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

Regarding Claim 26, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, wherein the label is a word or set of words (Fig. 8, Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 27, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, in which the information items are at least associated with image items, and

comprising providing one or more image items representative of the information content of the selected information items defined by the search criterion (Col. 9, lines 25 – 29 Jain; and Fig. 6, item 105, Page 5, [0111], lines 1 – 5, Weiss).

Regarding Claim 28, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, comprising selecting, from the set of image items, an image item which is representative of the set of image items as a whole according to a predetermined selection criterion (Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss).

Regarding Claim 29, the combination of Jain in view of Kohonen and further in view of Weiss discloses a method, comprising selecting the image item a property of which is nearest to the average of the same property of the said set of image items (Page 6, [0139], lines 1 – 6, selecting the Entertainment "continent", Weiss[11]).

Regarding Claim 30, the combination of Jain in view of Kohonen and further in view of Weiss discloses a computer software having program code for carrying out a method (Col. 22, lines 50 – 52, programming interface, Jain).

Regarding Claim 31, the combination of Jain in view of Kohonen and further in view of Weiss discloses a providing medium for providing program code (Col. 22, lines 50 – 52, the plug-in architecture, Jain).

Regarding Claim 32, the combination of Jain in view of Kohonen and further in view of Weiss discloses a medium, the medium being a storage medium (Col. 19, lines 51 – 52, Jain).

Regarding Claim 33, the combination of Jain in view of Kohonen and further in view of Weiss discloses a medium, the medium being a transmission medium (Col. 17, lines 15 – 18, Jain).

Regarding Claim 34, the combination of Jain in view of Kohonen and further in

view of Weiss discloses a user interface of an information retrieval system in which a

set of distinct information items map to respective nodes self-organizing map (Page 1,

b. Scope of This Work, para. 1, Kohonen) by mutual similarity of the information items,

so that similar information items map to nodes at similar positions in self-organizing map

(Page 1, b. Scope of This Work, para. 1, Kohonen), wherein the self-organizing map is

created by extracting features from the information items and comparing, collectively[12],

all of the features extracted from the information items[13] (Col. 9, lines 37 – 50, "…into a

single composite response…", Col. 11, "feature vectors from the database 112 (using

the database interface 208), **comparing them** against the equivalent feature vectors

and creating a ranked score sheet indicating the similarity of each retrieved image to the

query image or query term…."24 – 29, Col. 5, 58 – 61, "The characteristic of the patent

is that when it finds a candidate image in the database containing an apple by keyword

search, it screens the image by **comparing the similarity criteria set** by the user with

the schematic diagram and properties of the apple in the candidate image..", Col. 24,

lines 1 – 5 , "Alternatively, a multimedia engine can be used such that a single engine

computes feature vectors from multiple media types and **compares features** created

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[11] Wherein examiner interprets the subject Entertainment "continent", which includes TV series, Movies,
etc, as the property nearest to the average of the same property claimed.
[12] Collectively: forming a whole or aggregate; formed or assembled by collection (Collins English
Dictionary, HarperCollins Publishers 2000).
[13] Applicant should duly note that a preamble is generally not accorded any patentable weight where it
merely recites the purpose of a process or the intended use of a structure, and where the body of the
claim does not depend on the preamble for completeness but, instead, the process steps or structural
limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa
v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951)

from any registered media.", Jain; Page 584, lines 8 – 20, Kohonen), the interface

comprising:

a user control for defining a search criterion for selecting information items (Col.

9, lines 25 – 26, Jain); and

a graphical user interface arranged to displaying display points representing

those positions within the self-organizing map corresponding to the selected information

items (Col. 11 and 12, lines 62 – 64 and 1 - 3, respectively, Jain[14]; and Page 1, b.

Scope of This Work, para. 1, Kohonen and also see Page 579, Fig. 3, "Pointers",

Section: C. Rapid Fine-tuning of the Large Maps, 1) Addressing Old Winners, 1st

paragraph in that section, "…with a pointer corresponding to old winner location stored

with each training vector, the map unit corresponding to the associated pointer is

searched for first, and then a local search for …", Kohonen) and to display one or more

representations representative of the information content of the information items

selected by the search criterion (Col. 11, lines 24 – 29, Jain).

wherein the information items at least include image data (Col. 12, lines 57 – 59,

Jain); and

wherein the graphical user interface is configured to display one or more images

obtained from the image data included in the selected information items defined by the

search criterion so as to indicate the subject matter of the selected information items

(Col. 7, lines 35 – 39 and 45 – 47; Jain; and Fig. 7, Page 4, [0095] "Another aspect of

the clustering problem is naming the determined groups, **in order to determine what**

is their subject, since the link-oriented grouping is indifferent to text, and therefore can not relate a subject title to the new formed groups. The process of entitling a group is called herein 'Labeling'", and [0097], "and then **relating the words to a subject"**,Page 6, [0136], "As a result, the user **receives an illustration of the 'continents' where the searched words have been found**", and [0137], Optionally, the **results are presented in a 2-D map on which the main clusters are displayed as continents: the Sport continent, the Entertainment continent, the Health continent,** etc. The Clusters, in which the term 'Charlie's Angels' appeared, are marked for the user. Of course alternatively this presentation can be a textual presentation or most preferably 3D presentation", Wherein the step of receiving an illustration of the continents corresponds to the step of displaying one or more images as claimed; wherein labels: Sport, Entertainment, and Health displayed in Fig. 7 correspond to the subject matter as claimed; Weiss).

Regarding Claim 35, the combination of Jain in view of Kohonen and further in view of Weiss discloses a user interface, wherein the said user control comprises:

search means for carrying out a search of the information items (Col. 9, lines 25 – 26, Jain);

the search means and the graphical user interface being arranged to co-operate (Fig. 4, item 212, Col. 15, lines 51 – 52, Jain) so that only those display points

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[14] In addition, the feature vector, displayed in the results, includes points as claimed (Col. 10, lines 36 – 39, Jain).

corresponding to information items selected by the search are displayed on the user

display (Col. 15, lines 46 – 49, Jain).

Regarding Claim 36, the combination of Jain in view of Kohonen and further in

view of Weiss discloses an interface according to claim 34, wherein the graphical user

interface is arranged to display representations representative of the information content

of respective-clusters of similar information items (Col. 20, lines 6 – 12, TID

corresponds with "sky", Jain).

Regarding Claim 37, the combination of Jain in view of Kohonen and further in

view of Weiss discloses an interface, wherein graphical user interface is operable to

provide the or each said representation as a label of the display points corresponding to

the information items represented thereby (Fig. 7, 8, and 9, Page 4 and 5, [0095] and

[0099], lines 5 – 6 and 5 – 9; respectively, Weiss).

Regarding Claim 38, the combination of Jain in view of Kohonen and further in

view of Weiss discloses an interface, wherein the label is a word or set of words (Fig. 8,

Page 5, [0099], lines 5 – 9, "Charlie's Angels", Weiss).

Regarding Claim 39, the combination of Jain in view of Kohonen and further in

view of Weiss discloses an interface, wherein the said representations are image items

which are applied as labels to the display points corresponding to the information items

represented thereby (Page 6, [0137], lines 7 – 11, Weiss).

13.   **Claims 5 – 6, 8 – 9, and 19 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Jain et al. (Jain hereinafter) (US Patent No. 5,983,237, issued:

November 9, 1999), in view of Kohonen et al. (Kohonen hereinafter) (NPL: "Self

Organization of Massive Document Collection", IEEE, May 2000), and further in

view of Herz et al. (Herz hereinafter) (US Patent No. 5,754,938, issued: May 19,

1998).

Regarding Claim 5, the combination of Jain in view of Kohonen and further in

view of Weiss discloses all the limitations as disclosed above including a feature vector

for an information item. However, the combination of Jain in view of Kohonen is silent

with respect to a set of frequencies of occurrence. On the other hand, Herz discloses a

feature vector for an information item that represents a set of frequencies of occurrence,

within that information item, of each of a group of information features (Col. 56, lines 50

– 54, Herz). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the Herz' teachings to the system of the combination

of Jain in view of Kohonen. Skilled artisan would have been motivated to do so, as

suggested by Herz (Col. 7 and 8, lines 9 – 11 and 65 – 68 and 1 – 5, Herz), to measure

similarities of profiles describing target objects of user's interests; and to further predict

the information consumption patterns of a user allowing pre-caching of data at locations

on the data communication network and at times that minimized the traffic flow in the

communication network to thereby efficiently provide the desired information to the user

and/or conserve valuable storage space by only storing those target object (or

segments thereof) which are relevant to the user's interest. In addition, the applied

references (Jain, Kohonen, and Herz) teach features that are directed to analogous art

and they are directed to the same field of endeavor of database management system,

such as, search engine and clustering. This relation between the applied references

highly suggests an expectation of success.

Regarding Claim 6, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items comprise textual information,

the feature vector for an information item represents a set of frequencies of occurrence,

within that information item, of each of a group of words (Col. 56, lines 47 – 52, textual

attribute, Herz).

Regarding Claim 8, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items are pre-processed for

mapping by excluding words occurring with more than a threshold frequency amongst

the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 9, the combination of Jain in view of Kohonen and futher in view

of Herz discloses a system, in which the information items are pre-processed for

mapping by excluding words occurring with less than a threshold frequency amongst the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 19, the combination of Jain in view of Kohonen and futher in view of Herz discloses a portable data processing device comprising a system according to claim 1 (Col. 30, lines 35 – 37, Herz).

Response to Arguments

14.   Applicant argues that; " the '237 patent discloses a system that is in direct contrast to how self-organizing maps operate since self-organizing maps are created by extracting features from the information items and comparing, collectively, all of the features extracted from the information items, as recited in amended Claim 1. In contrast, the '237 patent teaches away from the possibility of using a self-organizing map or neural network".

Examiner respectfully disagrees. First, as discussed in the "Claim Rejections - 35 USC § 112" (in this Office Action above), the newly amended limitation: "extracting features from the information items and comparing, collectively[15], all of the features extracted from the information items" fails to comply with the written description requirement. Second, the combination of Jain in view of Kohonen and further in view of Weiss does disclose: extracting features from the information items and comparing,

collectively, all of the features extracted from the information items (Col. 9, lines 37 –

50, "…into a single composite response…", Col. 11, "feature vectors from the database

112 (using the database interface 208), **comparing them** against the equivalent

feature vectors and creating a ranked score sheet indicating the similarity of each

retrieved image to the query image or query term…."24 – 29, Col. 5, 58 – 61, "The

characteristic of the patent is that when it finds a candidate image in the database

containing an apple by keyword search, it screens the image by **comparing the**

similarity criteria set by the user with the schematic diagram and properties of the

apple in the candidate image..", Col. 24, lines 1 – 5 , "Alternatively, a multimedia

engine can be used such that a single engine computes feature vectors from multiple

media types and **compares features** created from any registered media.", Jain; Page

584, lines 8 – 20, Kohonen).

Also, in response to applicant argument that the Jain reference teaches away,

the examiner notes that the references (particularly Jain) do not criticize, discredit, or

otherwise discourage the solution claimed. Applicant should duly note that; "the prior

art's mere disclosure of more than one alternative does not constitute a teaching away

from any of these alternatives because such disclosure does not criticize, discredit, or

otherwise discourage the solution claimed…." In re Fulton, 391 F.3d 1195, 1201, 73

USPQ2d 1141, 1146 (Fed. Cir. 2004).

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[15] Collectively: forming a whole or aggregate; formed or assembled by collection (Collins English Dictionary, HarperCollins Publishers 2000).

15.   Applicant argues that the applied art fails to disclose; "that the information items

include at least image data, and that the processor is responsive to the selected

information items and displays one or more images obtained form the image data

included in the selected information items defined by the search criterion so as to

indicate the subject matter of the selected information items".

Examiner respectfully disagrees. First, as discussed in the "Claim Rejections - 35 USC

§ 112" (in this Office Action above), the newly amended limitation: "…search criterion

so as to indicate the subject matter of…" fails to comply with the written description

requirement. Second, the combination of Jain in view of Kohonen and further in view

of Weiss does disclose: that the information items include at least image data, and that

the processor is responsive to the selected information items and displays one or more

images obtained form the image data included in the selected information items

defined by the search criterion so as to indicate the subject matter of the selected

information items (Col. 7, lines 35 – 39 and 45 – 47; Jain; and Fig. 7, Page 4, [0095]

"Another aspect of the clustering problem is naming the determined groups, **in order**

to determine what is their subject, since the link-oriented grouping is indifferent to

text, and therefore can not relate a subject title to the new formed groups. The process

of entitling a group is called herein 'Labeling'", and [0097], "and then **relating the**

words to a subject",Page 6, [0136], "As a result, the user **receives an illustration of**

the 'continents' where the searched words have been found", and [0137],

Optionally, the **results are presented in a 2-D map on which the main clusters are**

displayed as continents: the Sport continent, the Entertainment continent, the

Health continent, etc. The Clusters, in which the term 'Charlie's Angels' appeared, are marked for the user. Of course alternatively this presentation can be a textual presentation or most preferably 3D presentation", Wherein the step of receiving an illustration of the continents corresponds to the step of displaying one or more images as claimed; wherein labels: Sport, Entertainment, and Health displayed in Fig. 7 correspond to the subject matter as claimed; Weiss).

Prior Art Made Of Record

1.   Jain et al. (US Patent No. 5,983,237, issued: November 9, 1999) discloses a visual dictionary.

2.   Herz et al. (US Patent No. 5,754,938, issued: May 19, 1998) discloses a pseudonymous server for system for customized electronic identification of desirable objects.

3.   Weiss et al. (US Patent App. Pub. No. 2002/0138487 A1, published: September 26, 2002) discloses a method and system for mapping and searching the internet and displaying the results in a visual form.

4.   Mao et al. (US Patent No. 7,031,909 B2) discloses a method and system naming a cluster of words and phrases.

5.   Rajasekaran et al. (US Patent No. 6,959,303 B2) discloses efficient searching teachniques.

6.   Kohonen et al. (Kohonen hereinafter) (NPL: "Self Organization of Massive

Document Collection", IEEE, May 2000).

Points Of Contact

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GIOVANNA COLAN whose telephone number is

(571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan

Examiner
Art Unit 2162
April 26, 2008

/Jean M Corrielus/
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